(19) World Intellectual Property **Organization**

International Bureau





(43) International Publication Date 21 April 2005 (21.04.2005)

(10) International Publication Number WO 2005/036659 A2

(51) International Patent Classification7:

H01L 35/00

(74) Agent: WINCKELS, J., H., F.; Vereenigde, Johan de Wittlaan 7, NL-2517 JR Den Haag (NL).

(21) International Application Number:

PCT/NL2004/000680

(22) International Filing Date: 1 October 2004 (01.10.2004)

(25) Filing Language:

Dutch

(26) Publication Language:

English

(30) Priority Data:

1024437

2 October 2003 (02.10.2003)

(71) Applicant (for all designated States except US): NED-ERLANDSE ORGANISATIE VOOR TOEGEPAST-NATUURWETENSCHAPPELLJK **ONDERZOEK** TNO [NL/NL]; Schoemakerstraat 97, NL-2628 Delft (NL).

(72) Inventors; and

(75) Inventors/Applicants (for US only): ZIJP, Johannes, Petrus [NL/NL]; Schout de Walestraat 29, NL-5062 AT Oisterwijk (NL). VAN MOL, Antonius, Maria, Bernardus [NL/NL]; Sliffertsestraat 299, NL-5657 AN Eindhoven (NL). GROB, Frank, Theodoor, Johannes [NL/NL]; Mathijs de Layenslaan 1 A, NL-5622 BM Eindhoven (NL).

- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG. PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

without international search report and to be republished upon receipt of that report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: COATING WHICH IS APPLIED TO A SUBSTRATE A SOLAR CELL AND METHOD FOR APPLYING THE COAT-ING TO THE SUBSTRATE

(57) Abstract: The invention relates to a coating which has been applied to a substrate, comprising at least a first film and a second film which have been applied on top of each other and each comprise a transparent conducting oxide and an electron donor, wherein the second film comprises relatively at least 10 percent less electron donor than the first film. The invention also relates to a solar cell comprising a coating according to the invention. The invention further relates to a method for applying the coating according to the invention to a substrate, wherein at least a first and a second mixture which each comprise one or more precursors for a transparent conducting oxide and an electron donor are applied to the substrate, wherein the second mixture is composed such that relatively at least 10 percent less electron donor is incorporated in the film compared with the film deposited by the first mixture.

